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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FIELDS, COURTNEY D

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,951

Applicant(s)

STEPHENSON ET AL.

Examiner

Courtney D. Fields

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20 December 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment

1. Claims 22-27 have been cancelled.
2. Claims 1-3,5-6,9-12,14-17, and 20-21 have been amended.
3. Claims 1-21 are pending.

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-7,10,12-16,17,19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Olds et al. (U.S. Patent No. 6, 691, 274).

Referring to the rejection of claim 1, Olds et al. discloses a method of transmitting data between a ground segment and a plurality of airborne segments comprising:
a forward link including: obtaining a first data stream at the ground segment, the first data stream including a data header having routing information and a data payload having other information; packet compressing said first data stream to maintain the data header while compressing the data payload; sending the packet compressed first data stream to the plurality of airborne segments and if the routing information in the data header matches an address of at least one of the plurality of airborne segments. de-

compressing the packet compressed first data stream at least one of the plurality of airborne segments and a return link including: obtaining a second data stream at least at one of the plurality of airborne segments bulk compressing the second data stream to compress all of the second data stream and sending the bulk compressed second data stream to the first ground segment, and de-compressing the bulk compressed second data stream at the ground segment in Column 1, lines 62-67, Column 2, lines 1-67, Column 3, lines 1-2, 66-67, Column 4, lines 1-19.

Referring to the rejection of claim 2, Olds et al. discloses framing the first data stream after the step of packet compressing the first data stream and prior to the step of sending the packet compressed first data stream to the plurality of airborne segments in Column 2, lines 36-45.

Referring to the rejection of claim 3, Olds et al. discloses spreading step of packet compressing the first data stream and the first data stream after the prior to the step of sending the packet compressed first data stream to the plurality of airborne segments in Column 2, lines 45-53.

Referring to the rejection of claim 4, Olds et al. discloses spreading step further comprises applying a forward error correction code to said first data stream in Column 3, lines 46-64.

Referring to the rejection of claim 6, Olds et al. discloses spreading the second data stream after the step of bulk compressing the second data stream and prior to the step of sending the bulk compressed second data stream to the first ground segment in Column 3, lines 15-45.

Referring to the rejection of claim 7, Olds et al. discloses spreading step further comprises applying a forward error correction code to the second data stream in Column 6, lines 29-54.

Referring to the rejection of claim 10, Olds et al. discloses de-compressing the packet compressed first data stream at least one of the plurality of airborne segments further comprises packet de-compressing the first data stream in Column 5, lines 38-54.

Referring to the rejection of claim 12, Olds et al. discloses de-spreading the first data stream prior to the step of de-compressing the first data stream at one of the plurality of airborne segments in Column 5, lines 23-37.

Referring to the rejection of claim 13, Olds et al. discloses de-spreading step further comprises applying an inverse forward error correction code to the first data stream in Column 6, lines 19-28.

Referring to the rejection of claim 14, Olds et al. discloses de-framing the first data stream prior to the step of de-compressing the first data stream at one of the plurality of airborne segments in Column 5, lines 55-65.

Referring to the rejection of claim 15, Olds et al. discloses de-compressing the bulk compressed second data stream at the ground segment further comprises bulk de-compressing the second data stream in Column 5, lines 66-67, Column 6, lines 1-11.
Referring to the rejection of claim 17, Olds et al. discloses de-spreading the second data stream prior to the step of de-compressing the second data stream at the ground segment in Column 6, lines 12-28.

Referring to the rejection of claim 19, Olds et al. discloses de-spreading step further comprises applying an inverse forward error correction code to the second data stream in Column 4, lines 19-43.

Referring to the rejection of claim 20, Olds et al. discloses packet encrypting the first data stream prior to the step of sending the first data stream to the plurality of airborne segments in Column 4, lines 44-63.

Referring to the rejection of claim 21, Olds et al. discloses bulk encrypting the second data stream prior to the step of sending the second data stream to the ground segment in Column 4, lines 64-67, Column 5, lines 1-22.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5,8-9,11,16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olds et al. (U.S. Patent No. 6, 691, 274) in view of Campanella (U.S. Patent No. 5,835,487). Olds et al. discloses the invention as substantially claimed above. However, Olds et al. does not teach a modulating, demodulating, or a chipping code. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have combine Olds et al.'s method for error correction with Campanella's satellite direct radio broadcast system in order to provide a real-time

individual uplink with direct access to the satellite preventing unauthorized users from receiving the data which is streamed across the direct audio broadcast system. (See Campanella, Column 1, lines 43-58)

Referring to the rejection of claim 5, Campanella discloses modulating said first data stream after said step of packet compressing said first data stream and prior to said step of sending said packet compressed first data stream to the plurality of airborne segments in Column 5, lines 6-11.

Referring to the rejection of claim 8, Campanella discloses spreading step further comprises applying a chipping code to the second data stream in Column 9, lines 66-67, Column 10, lines 1-5.

Referring to the rejection of claim 9, Campanella discloses modulating the second data stream after the step of bulk compressing the second data stream and prior to the step of sending the bulk compressed second data stream to the ground segment in Column 8, lines 30-47.

Referring to the rejection of claim 11, Campanella discloses de-modulating the first data stream prior to the step of de-compressing the first data stream at one of the plurality of airborne segments in Column 4, lines 66-67, Column 5, lines 1-6,

Referring to the rejection of claim 16, Campanella discloses de-modulating the second data stream prior to the step of de-compressing said second data stream at the ground segment in Column 5, lines 35-62.

Referring to the rejection of claim 18, Campanella discloses de-spreading step further comprises applying an inverse chipping code to the second data stream in Column 10, lines 6-17.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chandos et al. (U.S. Patent No. 6,240,074) discloses a secure communication hub and method of secure data communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/849,951

Page 8

Art Unit: 2137

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April 1, 2005

Andrew Caldwell

**ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER**